

Name: _____ TP: _____

Failure to show all work and write in complete sentences will result in LaSalle.

1) Solve (and check on your calculator!)

$$-4(7 + a) = -24$$

Math

Reason

*Fill in green blanks!

① $-4(7+a) = -24$ ② $-28 - 4a = -24$ ③ _____ ④ $\frac{-4a}{-4} = \frac{-24}{-4}$	Given Distributive Prop. Addition Property $a =$
-------------------------------------------------------------------------------------------	-----------------------------------------------------------

SOLUTION: _____

2) Solve (and check on your calculator!)

$$-1 = \frac{n-7}{4}$$

*Fraction = Division
 *What will "undo" division?

Math

Reason

3) Solve (and check on your calculator!)

$$-4a - a = -15$$

Math

Reason

4) Solve (and check on your calculator!)

$$402 = 4x + 7(8x + 6)$$

Math

Reason

5)

Solve for x: $3 - 4x = 13$

$$3 - 4x = 13$$

- A. $x = -13$
- B. $x = -4$
- C. $x = -2.5$
- D. $x = 2.5$
- E. $x = 4$

6)

What is the value of $\frac{2}{3}f - 2d$ when $f = 6$ and $d = -3$?

- A. 24
- B. 10
- C. -2
- D. -6
- E. -24

*When you substitute, put parentheses around the values
 KEI 401

Give me a Z! G'me an ESTY! PUT IT TOGETHER! ZESTY!

7) **Error Analysis.** *Describe and correct* the error made below:

$(6n - 8)(n + 2)$
 F: $6n(n) = 6n^2$
 O: $6n(2) = 12n$
 I: $8(n) = 8n$
 L: $8(2) = 16$

$6n^2 + 12n + 8n + 16$
 $6n^2 + 20n + 16$

8) **WRITE MATH.** *Explain* how to solve the equation below. Use words only.

$2\sqrt{k - 2} = 10$

↓
 Move the
 2 first!
 How...

9) Imagine that you go to the store and buy a pair of pants. The pants cost \$20 with a 10% tax. How much do the pants cost now?

① Change % to decimal & MULTIPLY!
 ② For tax, should you add or subtract to the total?

10) The movie theater where you go decides have a sale! The \$8 ticket price will be on sale for 30%. How much does a ticket cost on sale?

① → Same
 ② For a SALE, + or -?

11)

i. The cost for a business to produce x television commercials in 1 year is $\$225x + \$17,000$. How many commercials can the company produce in 1 year at a cost of \$35,000?

- F. 75
- G. 80
- H. 100
- J. 155
- K. 231

COMPLETE the givens:

$x =$ _____
 (words)

$x =$ _____
 (#)

Substitute:

12) **EXTRA CREDIT** if all work is shown, correct answer is selected, AND you are able to explain your answer in class the next day.

The expression $5m(-3m + 6n) - 9mn$ is equivalent to:
 F. $30mn - 8m$
 G. $21mn - 15m^2$
 H. $15mn - 9m^2$
 J. $6mn$
 K. $-15m^2$

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1) Solve, do the math and give your reason for each step, and check your solution using your calculator!

$$a + 39 = 5(4 + 4a)$$

Fill in green boxes

Math	Reason
$a + 39 = 5(4 + 4a)$	Given
$a + 39 = 20 + 20a$ $-a$	Distributive Property of =
$39 = 20 + 19a$	
	Subtraction Property of =
$\frac{19}{19} = \frac{19}{19}a$	
$a = \boxed{}$	

2) Solve, do the math and give your reason for each step, and check your solution using your calculator!

$$-7n + 5 = -4n + 14$$

Math	Reason

3) Solve, do the math and give your reason for each step, and check your solution using your calculator!

$$-3 = -7 + \frac{x}{4}$$

Math	Reason

4) If

$$-14 = -2 - 3v + 6$$

then $5v - 1 = ?$

✓ DON'T FORGET this VERY important direction!

$$-14 = (-2) - 3v (+6)$$

$$-14 = -3v + 4$$

Give me a Z! G'me an ESTY! PUT IT TOGETHER! ZESTY!

5)

COMPLETE givens!

If a ball is randomly chosen from a bag with exactly 10 purple balls, 10 yellow balls, and 8 green balls, what is the probability that the ball chosen will NOT be green?

F. $\frac{2}{7}$

G. $\frac{2}{5}$

H. $\frac{1}{2}$

J. $\frac{9}{14}$

K. $\frac{5}{7}$

Purple =

Yellow =

Green =

TOTAL =

NOT GREEN =
TOTAL

6) Remember to check your answer when you finish!

If $2x - 5 = 7x + 3$, then $x = ?$

F. $-\frac{8}{5}$

G. $-\frac{5}{8}$

H. $-\frac{2}{5}$

J. $\frac{2}{5}$

K. $\frac{8}{9}$

7)

What is the value of $2\sqrt{y+x^2}$ when $y=9$ and $x=-3$?

A. 0

B. 12

C. $6\sqrt{2}$

D. $18\sqrt{2}$

E. 36

$$2\sqrt{\overbrace{(\quad)^2}^{x^2} + (\quad)^2}$$

*Simplify the radical first & then _____ by 2!

9) Hint: Guess and check! You KNOW how to FOIL!

Which of the following is a factored form of $3x^2 - 13x - 10$?

A. $(3x+2)(x-5)$

B. $(3x-2)(x+5)$

C. $(x+3)(3x-5)$

D. $(x+2)(3x+5)$

E. $(3x-13)(x-10)$

8) Your brother gets a plate of pasta for dinner. The pasta costs \$11.60 and he wants to leave a 15% tip. What will the tip be?

① % → decimal
② JUST wants the tip!

10) EXTRA CREDIT if all work is shown, correct answer is selected, AND you are able to explain your answer in class the next day.

Which of the following expressions is equivalent to $6x + 12y - 15z$?

A. $3(x+12y-15z)$

B. $3(2x+4y-5z)$

C. $3(3x+4y)-5z$

D. $6(x+2y-3z)$

E. $15(x+y-z)$

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○ → less than $<$ or greater than $>$
 ● → less than or equal to \leq or greater than or equal to \geq

Failure to show all work and write in complete sentences will result in LaSalle.

1a) Write an inequality that represents the graph below?

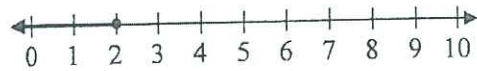


b) Is -1 a solution? Why or why not? (OPEN dot)

c) Is -10 a solution? Why or why not? (is the shading of the solution over -10?)

2a)

What inequality is shown on the number line?



- A. $x \leq 2$
- B. $x < 2$
- C. $x < -2$
- D. $x \neq 2$
- E. $0 < x < 2$

CLOSE dot or OPEN dot?

b) Is 2 a solution to the inequality? Why or why not?

3a) Write an inequality that represents the graph below?



b) Is 3 a solution? Why or why not?

4a) Graph the inequality $x > 6$:

b) Graph the inequality $x \leq -3$ or $x > 8$:

you have TWO inequalities, so there should be TWO sets of shading.

5) Your favorite watch is on sale! It usually costs \$42.00, but today they are available for 18% off. How much do they cost today?

6) A store is having a 24% off sale on \$17 bags. How much will you save?

① % → decimal & MULTIPLY
 ② "off" (sale) → + or - from the total?

} SAME

Give me a Z! G'me an ESTY! PUT IT TOGETHER! ZESTY!

7)

What is the value of $f(x) = 2x^2 - 3x + 4$ when $x = -4$?

*Substitute w/ parentheses!

- A. -48
B. -40
C. -16
D. 48
E. 80

FUN 401

8) Simplify.

$$(6x - 8y)(x + 5y)$$

F:

O:

I:

L:

9) Solve, do the math and give your reason for each step, and check your solution using your calculator!

$$-7n + 5 = -4n + 14$$

Math	Reason

10) Solve, do the math and give your reason for each step, and check your solution using your calculator!

$$-7 = \frac{-9 + m}{3}$$

Math	Reason

11)

9. If $\frac{3x}{2} + 10 = 4$, then $x = ?$

A. $9\frac{1}{3}$

B. 4

C. $\frac{2}{3}$

D. -4

E. -9

$$\boxed{\frac{3x}{2}} + 10 = 4$$

$$\frac{3x}{2} = -6$$

undo $\frac{3}{2}$ by

• $\frac{2}{3}$ to both sides.

12) **EXTRA CREDIT** if all work is shown, correct answer is selected, AND you are able to explain your answer in class the next day. Hint: Guess and check! You KNOW how to FOIL!

Which of the following is a factored form of the expression $7x^2 + 10x - 8$?

F. $(x - 1)(7x + 8)$

G. $(x - 4)(7x + 2)$

H. $(x - 8)(7x - 1)$

J. $(x + 2)(7x - 4)$

K. $(x + 4)(7x - 2)$

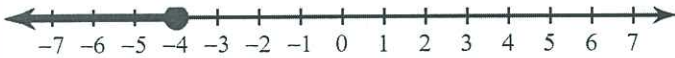
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HW75: Solve Inequalities
Form A 2015 Geometry
 Due Date: Monday, March 10th 2014

Failure to show all work and write in complete sentences will result in LaSalle.

1a) Write the inequality to match the graph below:



b) Is 0 a solution?

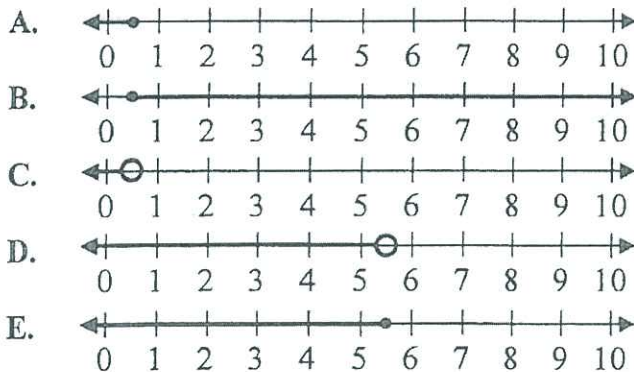
2a) Graph $0 \leq y \leq 9$ on the number line.

** y is TRAPPED b/w two points!*

b) Graph $x \geq 7$ or $x < -6$ on the number line.

TWO inequalities! OR means opposite directions!

3) ** Before solving, what flip answer choices can be eliminated?*
 What is the solution to $2x + 5 \leq 6$?



4a)

Solve for x: $2x + 6 > 14$

- A. $x > 2$
- B. $x > 4$
- C. $x > 8$
- D. $x > 10$
- E. $x > 20$

b) Graph the inequality on a number line:

c) Is 9 a solution to the inequality?

5) Solve and graph:
 $-342 \geq 6(7 + 8x)$



6) Solve and graph:

$$3 < \frac{x}{6}$$

→ What's the opposite of division?



** FLIP the inequality @ the end!*

Give me a Z! G'me an ESTY! PUT IT TOGETHER! ZESTY!

7) Write out your givens!

The area A of a trapezoid can be found using the formula

$$A = \frac{1}{2}(b_1 + b_2)h, \text{ where } b_1 \text{ and } b_2 \text{ are the lengths of the bases and}$$

h is the height. The area of a trapezoid is 54 square inches. If the length of one base is 11 inches and the height is 6 inches, what is the length of the other base?

$$A =$$

$$B_1 =$$

$$H =$$

$$B_2 = ?$$

*SUBSTITUTE & SOLVE!

9)

$$(x-5)(3x+6)=?$$

- A. $3x^2 - 9x - 30$
- B. $3x^2 - 21x - 30$
- C. $3x^2 - 30$
- D. $3x - 30$
- E. $-15x^2 - 30x$

8) Solve (and check in your calculator!)

$$-21 = -7\sqrt{29 - 2x}$$

① Isolate radical! (undo the -7)
② Opposite of $\sqrt{\quad}$ is ...

10) Solve, do the math and give your reason for each step, and check your solution using your calculator!

$$4k + 16 = 2 + 2k$$

Math	Reason
	Given
$2k + 16 = 2$	
	Subtraction Prop. of =

FINISH!

11) SHOW YOUR WORK.

$$3^0 + 3^2 + 3^{-2} = ?$$

A. 0

B. $\frac{1}{9}$

C. 9

D. $10\frac{1}{9}$

E. 19

$$3^0 = \square$$

$$3^2 = \square$$

$$3^{-2} = \square$$

NOW ADD!

12) EXTRA CREDIT if all work is shown, correct answer is selected, AND you are able to explain your answer in class the next day. Hint: Plug & Chug...SUBSTITUTE the values given in the multiple choice. You'll know your answer is right when it equals ZERO.

Which of the following is a solution to the equation $x^2 - 16x = 0$?

- A. 32
- B. 16
- C. 8
- D. 4
- E. -4

Give me a Z! G'me an ESTY! PUT IT TOGETHER! ZESTY!